REMARKS

Upon entry of the present amendment, claims 5-8, 13, 16-17 and 20-24 will remain pending in the above-identified application and stand ready for further action on the merits.

The amendments made herein to the claims do not incorporate new matter into the application as originally filed. In this regard, claims 16 and 17 have been amended to recite limitations previously recited in claim 9 (now cancelled). The newly added limitations recite that "the amount of sulfuric acid preexisting in the liquid acid precursor of a non-soap, anionic surfactant is 0.09 mol or less per mole of said liquid acid precursor". Support for this language also occurs in the specification at page 13, lines 16-25, wherein it is shown that from the view point of hue (color) in produced detergent granules, the amount of the inorganic acid is preferably 0.09 mol or less. Likewise, at page 51, lines 8-9 of the specification, it is indicated that in Example 1, the preexisting amount of sulfuric acid in the LAS is "0.05 mol", which agrees with the disclosure at page 13, already noted. For the Examiner's convenience, it is noted that by maintaining the amount of the inorganic acid (sulfuric acid) pre-existing in the liquid acid precursor of the non-soap anionic surfactant at a level of 0.09 mol or less per mole of the liquid acid precursor allows the inventors to accomplish an appropriate color for resulting detergent granules, thereby contributing an advantage to the outer

appearance of the desired detergent products. This feature of the present invention, while not critical thereto, nonetheless results in advantageous properties being associated with the claimed methods, detergent granules and compositions containing such detergent granules.

As indicated below, no reference being cited teaches, utilizes or otherwise provides for the occurrence or use of a liquid acid precursor of a non-soap anionic surfactant, containing such a low amount of inorganic acid per mol of the liquid acid precursor, or teaches, discloses or otherwise renders obvious that by utilizing such a component that there can be accomplished advantageous results associated with obtaining an appropriate color for detergent granules and detergent compositions produced utilizing the method as instantly claimed.

Incorporation of Earlier Remarks

The Examiner has maintained certain prior art rejections from an earlier Office Action. In this respect, the Examiner is respectfully requested to reconsider remarks set forth in Applicants earlier response of February 5, 2002, at page 7, line 1 to page 18, line 1, since such remarks clearly provide supporting evidence for the fact that the instantly claimed methods, detergent granules and compositions are in no way rendered obvious or

anticipated by the cited Barletta (US 4,919,847) or Tadsen et al. (US 5,527,489) references of record.

Prior Art Rejections

Claims 5-9, 13, 16 and 20 have been rejected under 35 USC § 102(b) as anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over Barletta et al. (US 4,919,847). Claims 5-9, 13, 17 and 20-24 have also been rejected under 35 USC § 103(a) as being unpatentable over Barletta. Likewise, claims 5-6, 13, 16-17 and 20-24 have been rejected under 35 USC § 103(a) as being unpatentable over Tadsen et al. (US 5,527,489). Reconsideration and withdrawal of each of these rejections is respectfully requested based upon the arguments of Applicants' prior response of February 5, 2002, incorporated herein by reference as noted above, and the following considerations.

A distinguishing and characteristic feature of the instantly claimed invention is that sulfuric acid is added to the starting material components in a specific proportion and that the amount of sulfuric acid pre-existing in the liquid acid precursor is 0.09 mol or less per mol of said liquid acid precursor. This is reflected in Example 1 on page 51, lines 6-9 of the application, which states that the liquid acid precursor (LAS) contains 0.05 mol of sulfuric acid per mol of LAS as a result of the LAS manufacturing process. As a technical feature maintaining such a low level of inorganic

acid (sulfuric acid) in the liquid acid precursor results in an advantageous property. This is reflected in disclosure at page 13, lines 16-25 of the application, wherein it is explained that by maintaining the amount of the inorganic acid pre-existing in the liquid acid precursor of the non-soap, anionic surfactant at a level of 0.09 mol or less allows one to accomplish an appropriate color for resulting detergent granules (and thereby also compositions containing the granules), with respect to the outer appearance of a desirable detergent product.

Notably, neither of the references being relied upon by the Examiner (Barletta or Tadsen), teach, disclose or motivate those of ordinary skill in the art to utilize in any way a liquid acid precursor (LAS) containing such a low amount of inorganic acid, or teach, disclose or otherwise render obvious that by utilizing such a liquid acid precursor (LAS) there can be advantageously and desirably obtained the accomplishment of appropriate color for resulting detergent granules, thereby contributing to the outer appearance of a desired detergent product.

In support of the above contention that the cited references completely fail to anticipate or render obvious the instant invention as presently claimed, Applicants need no more than simply point to the teachings of the references themselves.

First, the teachings of Barletta et al. at column 5, lines 31-35 clearly teach as follows with regard to the linear dodecylbenzene sulfonic acids utilized therein.

> *"...A typical linear dodecylbenzene sulfonic acid may have from 85 to 95% of sulfonic acid, 5 to 9% of sulfuric acid and 1 to 2% of free oil, with any water content thereof being held to no more than 1% and preferably, to less than 0.5%." (emphasis added)*

Accordingly, the above teaching of Barletta completely and unambiguously leads those of ordinary skill in the art away from the present invention as claimed. This teaching away from the present invention clearly prohibits and prevents the cited Barletta reference from being able to either anticipate or render obvious the instant invention as claimed.

Second, regarding the teachings of the Tadsen reference, Applicants point to column 10, lines 4-9 thereof, which discloses as follows:

> *"The alkylbenzene sulfonic acid material can contain from about 85% to about 98% sulfonic acid active, from about 0.5% to about 12% sulfuric acid, and from about 0% to about 5% water." (emphasis added)*

Accordingly, Tadsen also unambiguously and completely teaches away from the instant invention as claimed, by explicitly providing that the alkylbenzene sulfonic acid material utilized therein contains from 0.5% to about 12% sulfuric acid, which is clearly much greater than the level of "0.09 mol or less per mole of said

liquid acid precursor" as recited in the instant claims (see claims 16-17).

Since Applicants' two (2) independent claims (claims 16-17) each positively and explicitly recite as follows:

> *"...wherein the amount of sulfuric acid preexisting in the liquid acid precursor of a non-soap, anionic surfactant is 0.09 mol or less per mole of said liquid acid precursor..."*

it follows that neither of the instantly cited references of Barletta et al. or Tadsen et al. are capable of serving as a proper basis for either anticipating or rendering obvious the instant invention as claimed. Any contention of the Examiner to the contrary must be reconsidered, based upon the language of the instant claims, and the fact that both cited references completely and unambiguously teach away from the present invention as claimed. Likewise, neither reference teaches, discloses or otherwise motivates one skilled in the art to arrive at the present inventive methods, detergent granules or detergent compositions as instantly claimed, wherein advantageous and unexpected properties are possessed thereby, based upon the low amount of the inorganic acid that preexists in the liquid acid precursor of a non-soap, anionic surfactant.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance, clearly indicating that each of Applicants' pending claims 5-8, 13, 16-17 and 20-24 are allowed and patentable under the provisions of Title 35 of the United States Code.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Attached hereto is a marked-up version of the changes made to the application by this Amendment.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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JWB/end
1422-0371P

Attachment: Version with Markings to Show Changes Made

(Rev. 02/20/02)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 9 has been canceled.

The claims have been amended as follows:

16. (Twice Amended) A method for producing detergent granules, comprising the step of dry-neutralizing a liquid acid precursor of a non-soap, anionic surfactant with a water-soluble, solid, alkali inorganic substance, wherein a dry-neutralizing step is carried out in the presence of 0.1 to 1.0 mol of a sulfuric acid per mol of said liquid acid precursor of a non-soap, anionic surfactant[, and] ;

wherein the amount of sulfuric acid preexisting in the liquid acid precursor of a non-soap, anionic surfactant is 0.09 mol or less per mole of said liquid acid precursor;

wherein the sulfuric acid is added to the starting material components, including the liquid acid precursor of a non-soap, anionic surfactant[,] ; and

wherein the resulting detergent granules contain the non-soap, anionic surfactant in an amount of 28% by weight or more and less than 50% by weight, and have a molar ratio of (inorganic salt undetectable by x-ray diffraction method)/(non-soap, anionic surfactant) of from 0.1 to 1.0, and [wherein] the inorganic salt undetectable by x-ray diffraction method is sodium sulfate.

17. (Twice Amended) A method for producing detergent granules, comprising the step of dry-neutralizing a liquid acid precursor of a non-soap, anionic surfactant with a water-soluble, solid, alkali inorganic substance, wherein a dry-neutralizing step is carried out in the presence of 0.3 to 1.0 mol of a sulfuric acid per mol of said liquid acid precursor of a non-soap, anionic surfactant[, and] ;

wherein the amount of sulfuric acid preexisting in the liquid acid precursor of a non-soap, anionic surfactant is 0.09 mol or less per mole of said liquid acid precursor;

wherein the sulfuric acid is added to the starting material components, including the liquid acid precursor of a non-soap, anionic surfactant[,] ; and

wherein the resulting detergent granules contain the non-soap, anionic surfactant in an amount of 10% by weight or more and less than 28% by weight, and have a molar ratio of (inorganic salt undetectable by x-ray diffraction method)/(non-soap, anionic surfactant) of from 0.3 to 1.0, and [wherein] the inorganic salt undetectable by x-ray diffraction method is sodium sulfate.